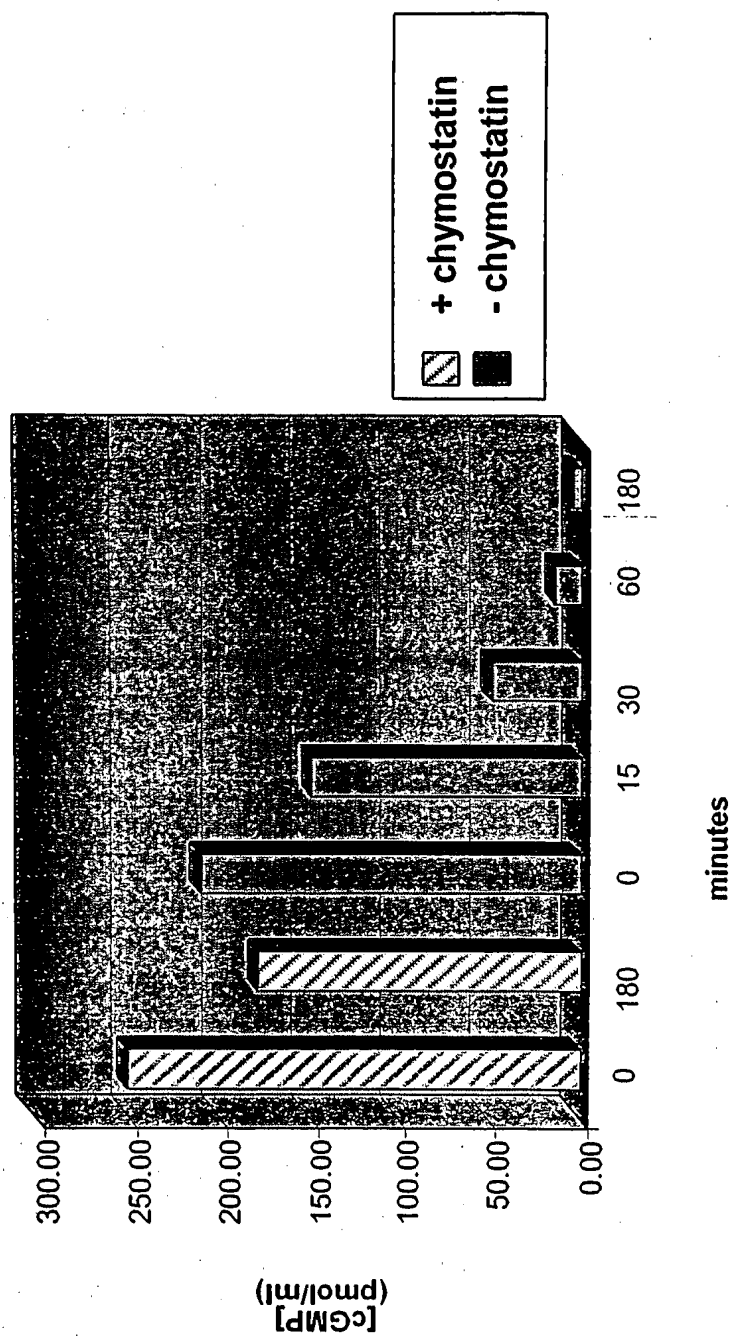
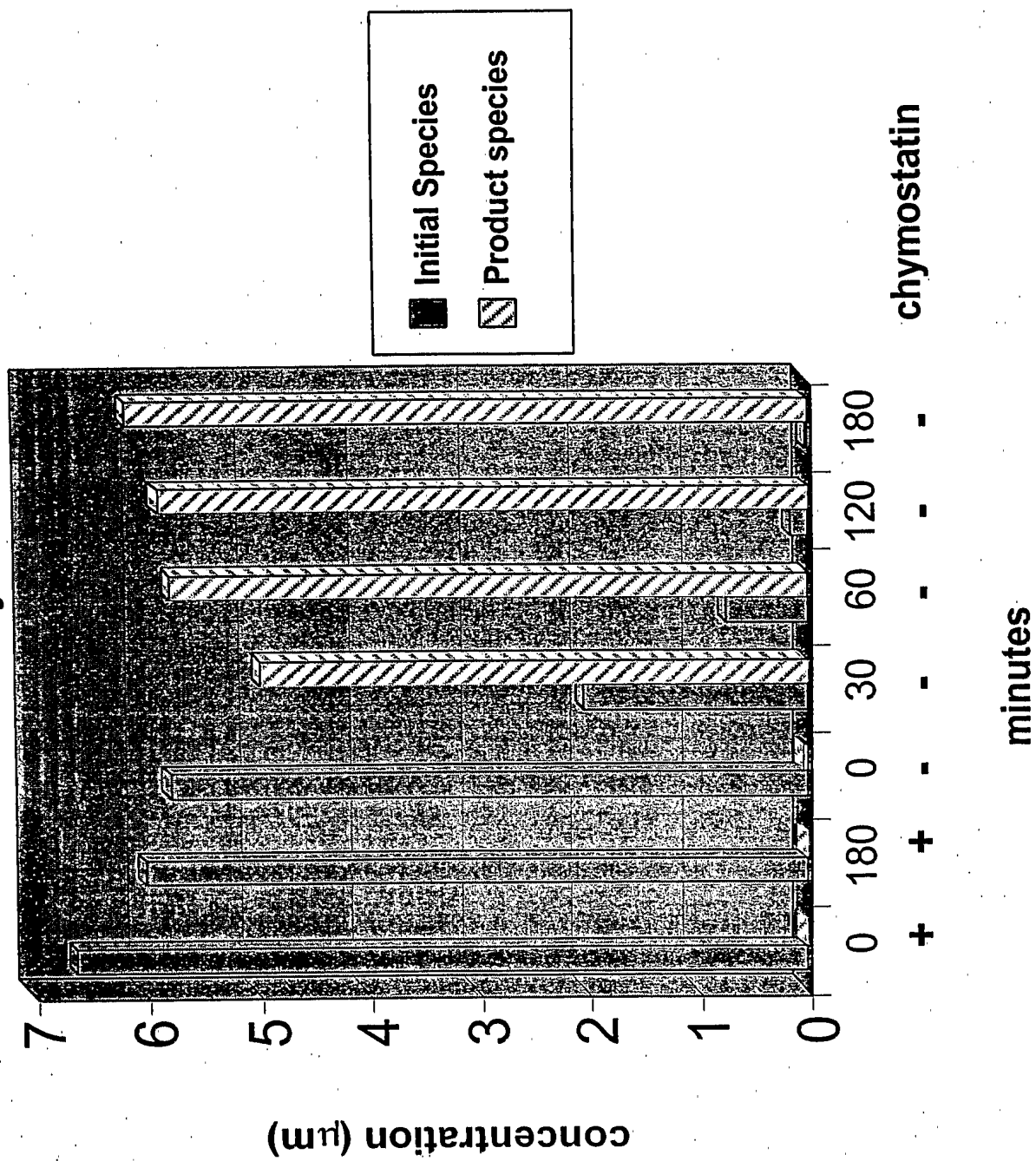


**Figure 1. Guanylin chymotrypsin sensitivity as determined by cGMP assay**



**Figure 2. Guanylin chymotrypsin sensitivity as determined by LCMS analysis**



Pro Gly Thr Cys Gly Glu Ile Cys Ala Tyr Ala Ala Cys Thr Gly Cys

Human Guanylin (SEQ ID NO: )

[illegible]

**FIG. 3**  
(sheet 1 of 17)

[illegible]

**FIG. 3**  
(sheet 2 of 17)



---	Gly	---	Cys	Gly	Glu	Ile	Cys	Ala	---	Ala	Ala	Cys	---	Gly	Cys	(SEQ ID NO: 1)
---	Gly	---	Cys	Gly	Glu	Ile	Cys	Ala	---	Ala	Ala	Cys	Thr	---	Cys	(SEQ ID NO: 2)
---	Gly	---	Cys	Gly	Glu	Ile	Cys	Ala	Tyr	---	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 3)
---	Gly	---	Cys	Gly	Glu	Ile	Cys	Ala	Tyr	---	---	Cys	Thr	Gly	Cys	(SEQ ID NO: 4)
---	Gly	---	Cys	Gly	Glu	Ile	Cys	Ala	Tyr	---	Ala	Cys	---	Gly	Cys	(SEQ ID NO: 5)
---	Gly	---	Cys	Gly	Glu	Ile	Cys	Ala	Tyr	---	Ala	Cys	Thr	---	Cys	(SEQ ID NO: 6)
---	Gly	---	Cys	Gly	Glu	Ile	Cys	Ala	Tyr	Ala	---	Cys	Thr	Gly	Cys	(SEQ ID NO: 7)
---	Gly	---	Cys	Gly	Glu	Ile	Cys	Ala	Tyr	Ala	---	Cys	---	Gly	Cys	(SEQ ID NO: 8)
---	Gly	---	Cys	Gly	Glu	Ile	Cys	Ala	Tyr	Ala	---	Cys	Thr	---	Cys	(SEQ ID NO: 9)
---	Gly	---	Cys	Gly	Glu	Ile	Cys	Ala	Tyr	Ala	Ala	Cys	---	Gly	Cys	(SEQ ID NO: 10)
---	Gly	---	Cys	Gly	Glu	Ile	Cys	Ala	Tyr	Ala	Ala	Cys	---	---	Cys	(SEQ ID NO: 11)
---	Gly	---	Cys	Gly	Glu	Ile	Cys	Ala	Tyr	Ala	Ala	Cys	Thr	---	Cys	(SEQ ID NO: 12)
---	Gly	Thr	Cys	---	Glu	Ile	Cys	Ala	Tyr	Ala	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 13)
---	Gly	Thr	Cys	---	---	Ile	Cys	Ala	Tyr	Ala	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 14)
---	Gly	Thr	Cys	---	---	---	Cys	Ala	Tyr	Ala	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 15)
---	Gly	Thr	Cys	---	---	Ile	Cys	---	Tyr	Ala	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 16)
---	Gly	Thr	Cys	---	---	Ile	Cys	Ala	---	Ala	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 17)
---	Gly	Thr	Cys	---	---	Ile	Cys	Ala	Tyr	---	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 18)
---	Gly	Thr	Cys	---	---	Ile	Cys	Ala	Tyr	Ala	---	Cys	Thr	Gly	Cys	(SEQ ID NO: 19)
---	Gly	Thr	Cys	---	---	Ile	Cys	Ala	Tyr	Ala	Ala	Cys	---	Gly	Cys	(SEQ ID NO: 20)
---	Gly	Thr	Cys	---	---	Ile	Cys	Ala	Tyr	Ala	Ala	Cys	Thr	---	Cys	(SEQ ID NO: 21)
---	Gly	Thr	Cys	---	Glu	---	Cys	Ala	Tyr	Ala	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 22)
---	Gly	Thr	Cys	---	Glu	---	Cys	---	Tyr	Ala	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 23)
---	Gly	Thr	Cys	---	Glu	---	Cys	Ala	---	Ala	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 24)
---	Gly	Thr	Cys	---	Glu	---	Cys	Ala	Tyr	---	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 25)
---	Gly	Thr	Cys	---	Glu	---	Cys	Ala	Tyr	Ala	---	Cys	Thr	Gly	Cys	(SEQ ID NO: 26)
---	Gly	Thr	Cys	---	Glu	---	Cys	Ala	Tyr	Ala	Ala	Cys	---	Gly	Cys	(SEQ ID NO: 27)
---	Gly	Thr	Cys	---	Glu	---	Cys	Ala	Tyr	Ala	Ala	Cys	Thr	---	Cys	(SEQ ID NO: 28)
---	Gly	Thr	Cys	---	Glu	Ile	Cys	---	Tyr	Ala	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 29)
---	Gly	Thr	Cys	---	Glu	Ile	Cys	---	---	Ala	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 30)
---	Gly	Thr	Cys	---	Glu	Ile	Cys	---	Tyr	---	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 31)
---	Gly	Thr	Cys	---	Glu	Ile	Cys	---	Tyr	Ala	---	Cys	Thr	Gly	Cys	(SEQ ID NO: 32)
---	Gly	Thr	Cys	---	Glu	Ile	Cys	---	Tyr	Ala	Ala	Cys	---	Gly	Cys	(SEQ ID NO: 33)
---	Gly	Thr	Cys	---	Glu	Ile	Cys	---	Tyr	Ala	Ala	Cys	Thr	---	Cys	(SEQ ID NO: 34)
---	Gly	Thr	Cys	---	Glu	Ile	Cys	Ala	---	Ala	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 35)
---	Gly	Thr	Cys	---	Glu	Ile	Cys	Ala	---	---	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 36)
---	Gly	Thr	Cys	---	Glu	Ile	Cys	Ala	---	Ala	---	Cys				

**FIG. 3**  
(sheet 3 of 17)

[illegible]

**FIG. 3**  
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Pro	---	Thr	Cys	---	Glu	Ile	Cys	Ala	Tyr	Ala	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 1)
Pro	---	Thr	Cys	---	---	Ile	Cys	Ala	Tyr	Ala	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 2)
Pro	---	Thr	Cys	---	---	---	Cys	Ala	Tyr	Ala	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 3)
Pro	---	Thr	Cys	---	---	Ile	Cys	---	Tyr	Ala	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 4)
Pro	---	Thr	Cys	---	---	Ile	Cys	Ala	---	Ala	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 5)
Pro	---	Thr	Cys	---	---	Ile	Cys	Ala	Tyr	---	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 6)
Pro	---	Thr	Cys	---	---	Ile	Cys	Ala	Tyr	Ala	---	Cys	Thr	Gly	Cys	(SEQ ID NO: 7)
Pro	---	Thr	Cys	---	---	Ile	Cys	Ala	Tyr	Ala	Ala	Cys	---	Gly	Cys	(SEQ ID NO: 8)
Pro	---	Thr	Cys	---	---	Ile	Cys	Ala	Tyr	Ala	Ala	Cys	Thr	---	Cys	(SEQ ID NO: 9)
Pro	---	Thr	Cys	---	Glu	---	Cys	Ala	Tyr	Ala	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 10)
Pro	---	Thr	Cys	---	Glu	---	Cys	---	Tyr	Ala	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 11)
Pro	---	Thr	Cys	---	Glu	---	Cys	Ala	---	Ala	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 12)
Pro	---	Thr	Cys	---	Glu	---	Cys	Ala	Tyr	---	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 13)
Pro	---	Thr	Cys	---	Glu	---	Cys	Ala	Tyr	Ala	---	Cys	Thr	Gly	Cys	(SEQ ID NO: 14)
Pro	---	Thr	Cys	---	Glu	---	Cys	Ala	Tyr	Ala	Ala	Cys	---	Gly	Cys	(SEQ ID NO: 15)
Pro	---	Thr	Cys	---	Glu	---	Cys	Ala	Tyr	Ala	Ala	Cys	Thr	---	Cys	(SEQ ID NO: 16)
Pro	---	Thr	Cys	---	Glu	Ile	Cys	---	Tyr	Ala	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 17)
Pro	---	Thr	Cys	---	Glu	Ile	Cys	---	---	Ala	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 18)
Pro	---	Thr	Cys	---	Glu	Ile	Cys	---	Tyr	---	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 19)
Pro	---	Thr	Cys	---	Glu	Ile	Cys	---	Tyr	Ala	---	Cys	Thr	Gly	Cys	(SEQ ID NO: 20)
Pro	---	Thr	Cys	---	Glu	Ile	Cys	---	Tyr	Ala	Ala	Cys	---	Gly	Cys	(SEQ ID NO: 21)
Pro	---	Thr	Cys	---	Glu	Ile	Cys	---	Tyr	Ala	Ala	Cys	Thr	---	Cys	(SEQ ID NO: 22)
Pro	---	Thr	Cys	---	Glu	Ile	Cys	Ala	---	Ala	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 23)
Pro	---	Thr	Cys	---	Glu	Ile	Cys	Ala	---	---	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 24)
Pro	---	Thr	Cys	---	Glu	Ile	Cys	Ala	---	Ala	---	Cys	Thr	Gly	Cys	(SEQ ID NO: 25)
Pro	---	Thr	Cys	---	Glu	Ile	Cys	Ala	---	Ala	Ala	Cys	---	Gly	Cys	(SEQ ID NO: 26)
Pro	---	Thr	Cys	---	Glu	Ile	Cys	Ala	---	Ala	Ala	Cys	Thr	---	Cys	(SEQ ID NO: 27)
Pro	---	Thr	Cys	---	Glu	Ile	Cys	Ala	Tyr	---	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 28)
Pro	---	Thr	Cys	---	Glu	Ile	Cys	Ala	Tyr	---	---	Cys	Thr	Gly	Cys	(SEQ ID NO: 29)
Pro	---	Thr	Cys	---	Glu	Ile	Cys	Ala	Tyr	---	Ala	Cys	---	Gly	Cys	(SEQ ID NO: 30)
Pro	---	Thr	Cys	---	Glu	Ile	Cys	Ala	Tyr	---	Ala	Cys	Thr	---	Cys	(SEQ ID NO: 31)
Pro	---	Thr	Cys	---	Glu	Ile	Cys	Ala	Tyr	Ala	---	Cys	Thr	Gly	Cys	(SEQ ID NO: 32)
Pro	---	Thr	Cys	---	Glu	Ile	Cys	Ala	Tyr	Ala	---	Cys	---	Gly	Cys	(SEQ ID NO: 33)
Pro	---	Thr	Cys	---	Glu	Ile	Cys	Ala	Tyr	Ala	---	Cys	Thr	---	Cys	(SEQ ID NO: 34)
Pro	---	Thr	Cys	---	Glu	Ile	Cys	Ala	Tyr	Ala	Ala	Cys	---	Gly	Cys	(SEQ ID NO: 35)
Pro	---	Thr	Cys	---	Glu	Ile	Cys	Ala	Tyr	Ala	Ala	Cys	---	---	Cys	(SEQ ID NO: 36)
Pro	---	Thr	Cys	---	Glu	Ile	Cys	Ala	Tyr	Ala	Ala	Cys	Thr	---	Cys	(SEQ ID NO: 37)
Pro																

**FIG. 3**  
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Pro	---	Thr	Cys	Gly	---	Ile	Cys	---	Tyr	Ala	---	Cys	Thr	Gly	Cys	(SEQ ID NO: 1)
Pro	---	Thr	Cys	Gly	---	Ile	Cys	---	Tyr	Ala	---	Cys	Thr	Gly	Cys	(SEQ ID NO: 2)
Pro	---	Thr	Cys	Gly	---	Ile	Cys	---	Tyr	Ala	Ala	Cys	---	Gly	Cys	(SEQ ID NO: 3)
Pro	---	Thr	Cys	Gly	---	Ile	Cys	---	Tyr	Ala	Ala	Cys	Thr	---	Cys	(SEQ ID NO: 4)
Pro	---	Thr	Cys	Gly	---	Ile	Cys	Ala	---	Ala	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 5)
Pro	---	Thr	Cys	Gly	---	Ile	Cys	Ala	---	---	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 6)
Pro	---	Thr	Cys	Gly	---	Ile	Cys	Ala	---	Ala	Ala	Cys	---	Gly	Cys	(SEQ ID NO: 7)
Pro	---	Thr	Cys	Gly	---	Ile	Cys	Ala	---	Ala	Ala	Cys	Thr	---	Cys	(SEQ ID NO: 8)
Pro	---	Thr	Cys	Gly	---	Ile	Cys	Ala	Tyr	---	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 9)
Pro	---	Thr	Cys	Gly	---	Ile	Cys	Ala	Tyr	---	---	Cys	Thr	Gly	Cys	(SEQ ID NO: 10)
Pro	---	Thr	Cys	Gly	---	Ile	Cys	Ala	Tyr	---	Ala	Cys	---	Gly	Cys	(SEQ ID NO: 11)
Pro	---	Thr	Cys	Gly	---	Ile	Cys	Ala	Tyr	---	Ala	Cys	Thr	---	Cys	(SEQ ID NO: 12)
Pro	---	Thr	Cys	Gly	---	Ile	Cys	Ala	Tyr	Ala	---	Cys	Thr	Gly	Cys	(SEQ ID NO: 13)
Pro	---	Thr	Cys	Gly	---	Ile	Cys	Ala	Tyr	Ala	---	Cys	---	Gly	Cys	(SEQ ID NO: 14)
Pro	---	Thr	Cys	Gly	---	Ile	Cys	Ala	Tyr	Ala	---	Cys	Thr	---	Cys	(SEQ ID NO: 15)
Pro	---	Thr	Cys	Gly	---	Ile	Cys	Ala	Tyr	Ala	Ala	Cys	---	Gly	Cys	(SEQ ID NO: 16)
Pro	---	Thr	Cys	Gly	---	Ile	Cys	Ala	Tyr	Ala	Ala	Cys	---	---	Cys	(SEQ ID NO: 17)
Pro	---	Thr	Cys	Gly	---	Ile	Cys	Ala	Tyr	Ala	Ala	Cys	Thr	---	Cys	(SEQ ID NO: 18)
Pro	---	Thr	Cys	Gly	Glu	---	Cys	Ala	Tyr	Ala	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 19)
Pro	---	Thr	Cys	Gly	Glu	---	Cys	---	Tyr	Ala	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 20)
Pro	---	Thr	Cys	Gly	Glu	---	Cys	---	---	Ala	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 21)
Pro	---	Thr	Cys	Gly	Glu	---	Cys	---	Tyr	---	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 22)
Pro	---	Thr	Cys	Gly	Glu	---	Cys	---	Tyr	Ala	---	Cys	Thr	Gly	Cys	(SEQ ID NO: 23)
Pro	---	Thr	Cys	Gly	Glu	---	Cys	---	Tyr	Ala	Ala	Cys	---	Gly	Cys	(SEQ ID NO: 24)
Pro	---	Thr	Cys	Gly	Glu	---	Cys	---	Tyr	Ala	Ala	Cys	Thr	---	Cys	(SEQ ID NO: 25)
Pro	---	Thr	Cys	Gly	Glu	---	Cys	Ala	---	Ala	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 26)
Pro	---	Thr	Cys	Gly	Glu	---	Cys	Ala	---	---	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 27)
Pro	---	Thr	Cys	Gly	Glu	---	Cys	Ala	---	Ala	---	Cys	Thr	Gly	Cys	(SEQ ID NO: 28)
Pro	---	Thr	Cys	Gly	Glu	---	Cys	Ala	---	Ala	Ala	Cys	---	Gly	Cys	(SEQ ID NO: 29)
Pro	---	Thr	Cys	Gly	Glu	---	Cys	Ala	---	Ala	Ala	Cys	Thr	---	Cys	(SEQ ID NO: 30)
Pro	---	Thr	Cys	Gly	Glu	---	Cys	Ala	Tyr	---	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 31)
Pro	---	Thr	Cys	Gly	Glu	---	Cys	Ala	Tyr	---	---	Cys	Thr	Gly	Cys	(SEQ ID NO: 32)
Pro	---	Thr	Cys	Gly	Glu	---	Cys	Ala	Tyr	---	Ala	Cys	---	Gly	Cys	(SEQ ID NO: 33)
Pro	---	Thr	Cys	Gly	Glu	---	Cys	Ala	Tyr	---	Ala	Cys	Thr	---	Cys	(SEQ ID NO: 34)
Pro	---	Thr	Cys	Gly	Glu	---	Cys	Ala	Tyr	Ala	---	Cys	Thr	Gly	Cys	(SEQ ID NO: 35)
Pro	---	Thr	Cys	Gly	Glu	---	Cys	Ala	Tyr	Ala	---	Cys	---	Gly	Cys	(SEQ ID NO: 36)
Pro	---	Thr	Cys	Gly	Glu	---	Cys	Ala	Tyr	Ala	---	Cys	Thr			

**FIG. 3**  
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Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	---	Tyr	---	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 1)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	---	Tyr	---	---	Cys	Thr	Gly	Cys	(SEQ ID NO: 2)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	---	Tyr	---	Ala	Cys	---	Gly	Cys	(SEQ ID NO: 3)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	---	Tyr	---	Ala	Cys	Thr	---	Cys	(SEQ ID NO: 4)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	---	Tyr	Ala	---	Cys	Thr	Gly	Cys	(SEQ ID NO: 5)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	---	Tyr	Ala	---	Cys	---	Gly	Cys	(SEQ ID NO: 6)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	---	Tyr	Ala	---	Cys	Thr	---	Cys	(SEQ ID NO: 7)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	---	Tyr	Ala	Ala	Cys	---	Gly	Cys	(SEQ ID NO: 8)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	---	Tyr	Ala	Ala	Cys	---	---	Cys	(SEQ ID NO: 9)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	---	Tyr	Ala	Ala	Cys	Thr	---	Cys	(SEQ ID NO: 10)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	Ala	---	Ala	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 11)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	Ala	---	---	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 12)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	Ala	---	---	---	Cys	Thr	Gly	Cys	(SEQ ID NO: 13)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	Ala	---	---	Ala	Cys	---	Gly	Cys	(SEQ ID NO: 14)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	Ala	---	---	Ala	Cys	Thr	---	Cys	(SEQ ID NO: 15)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	Ala	---	Ala	---	Cys	Thr	Gly	Cys	(SEQ ID NO: 16)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	Ala	---	Ala	---	Cys	---	Gly	Cys	(SEQ ID NO: 17)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	Ala	---	Ala	---	Cys	Thr	---	Cys	(SEQ ID NO: 18)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	Ala	---	Ala	Ala	Cys	---	Gly	Cys	(SEQ ID NO: 19)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	Ala	---	Ala	Ala	Cys	---	---	Cys	(SEQ ID NO: 20)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	Ala	---	Ala	Ala	Cys	Thr	---	Cys	(SEQ ID NO: 21)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	Ala	Tyr	---	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 22)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	Ala	Tyr	---	---	Cys	Thr	Gly	Cys	(SEQ ID NO: 23)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	Ala	Tyr	---	---	Cys	---	Gly	Cys	(SEQ ID NO: 24)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	Ala	Tyr	---	---	Cys	Thr	---	Cys	(SEQ ID NO: 25)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	Ala	Tyr	---	Ala	Cys	---	Gly	Cys	(SEQ ID NO: 26)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	Ala	Tyr	---	Ala	Cys	---	---	Cys	(SEQ ID NO: 27)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	Ala	Tyr	---	Ala	Cys	Thr	---	Cys	(SEQ ID NO: 28)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	Ala	Tyr	Ala	---	Cys	Thr	Gly	Cys	(SEQ ID NO: 29)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	Ala	Tyr	Ala	---	Cys	---	Gly	Cys	(SEQ ID NO: 30)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	Ala	Tyr	Ala	---	Cys	---	---	Cys	(SEQ ID NO: 31)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	Ala	Tyr	Ala	---	Cys	Thr	---	Cys	(SEQ ID NO: 32)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	Ala	Tyr	Ala	Ala	Cys	---	Gly	Cys	(SEQ ID NO: 33)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	Ala	Tyr	Ala	Ala	Cys	---	---	Cys	(SEQ ID NO: 34)
Pro	---	Thr	Cys	Gly	Glu	Ile	Cys	Ala	Tyr	Ala	Ala	Cys	Thr	---	Cys	(SEQ ID NO: 35)
Pro	Gly	---	Cys	Gly	Glu	Ile	Cys	Ala	Tyr	Ala	Ala	Cys	Thr	Gly	Cys	(SEQ ID NO: 36)
Pro	Gly	---	Cys	---	Glu	Ile	Cys	Ala	Tyr	Ala	Ala	Cys				

**FIG. 3**  
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**FIG. 3**  
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**FIG. 3**  
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**FIG. 3**  
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**FIG. 3**  
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**FIG. 3**  
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**FIG. 3**  
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[illegible]

**FIG. 4**  
**(sheet 1 of 114)**





[illegible]

**FIG. 4**  
**(sheet 3 of 114)**

Pro Gly Xaa' Xaa' Thr Cys Gly Glu Ile Cys Ala Tyr Xaa' Ala Ala Cys Thr Gly Cys (SEQID NO: )  
 Pro Gly Xaa' Xaa' Thr Cys Gly Glu Ile Cys Ala Tyr Xaa' Xaa' Ala Ala Cys Thr Gly Cys (SEQID NO: )  
 Pro Gly Xaa' Xaa' Thr Cys Gly Glu Ile Cys Ala Tyr Xaa' Ala Xaa' Ala Cys Thr Gly Cys (SEQID NO: )  
 Pro Gly Xaa' Xaa' Thr Cys Gly Glu Ile Cys Ala Tyr Xaa' Ala Ala Xaa' Cys Thr Gly Cys (SEQID NO: )  
 Pro Gly Xaa' Xaa' Thr Cys Gly Glu Ile Cys Ala Tyr Xaa' Ala Ala Cys Xaa' Thr Gly Cys (SEQID NO: )  
 Pro Gly Xaa' Xaa' Thr Cys Gly Glu Ile Cys Ala Tyr Xaa' Ala Ala Cys Thr Xaa' Gly Cys (SEQID NO: )  
 Pro Gly Xaa' Xaa' Thr Cys Gly Glu Ile Cys Ala Tyr Xaa' Ala Ala Cys Thr Gly Xaa' Cys (SEQID NO: )  
 Pro Gly Xaa' Xaa' Thr Cys Gly Glu Ile Cys Ala Tyr Xaa' Ala Ala Cys Thr Gly Cys Xaa' (SEQID NO: )  
 Pro Gly Xaa' Xaa' Thr Cys Gly Glu Ile Cys Ala Tyr Ala Xaa' Ala Cys Thr Gly Cys (SEQID NO: )  
 Pro Gly Xaa' Xaa' Thr Cys Gly Glu Ile Cys Ala Tyr Ala Xaa' Xaa' Ala Cys Thr Gly Cys (SEQID NO: )  
 Pro Gly Xaa' Xaa' Thr Cys Gly Glu Ile Cys Ala Tyr Ala Xaa' Ala Xaa' Cys Thr Gly Cys (SEQID NO: )  
 Pro Gly Xaa' Xaa' Thr Cys Gly Glu Ile Cys Ala Tyr Ala Xaa' Ala Cys Xaa' Thr Gly Cys (SEQID NO: )  
 Pro Gly Xaa' Xaa' Thr Cys Gly Glu Ile Cys Ala Tyr Ala Xaa' Ala Cys Thr Xaa' Gly Cys (SEQID NO: )  
 Pro Gly Xaa' Xaa' Thr Cys Gly Glu Ile Cys Ala Tyr Ala Xaa' Ala Cys Thr Gly Xaa' Cys (SEQID NO: )  
 Pro Gly Xaa' Xaa' Thr Cys Gly Glu Ile Cys Ala Tyr Ala Xaa' Ala Cys Thr Gly Cys Xaa' (SEQID NO: )  
 Pro Gly Xaa' Xaa' Thr Cys Gly Glu Ile Cys Ala Tyr Ala Xaa' Ala Cys Thr Gly Cys (SEQID NO: )  
 Pro Gly Xaa' Xaa' Thr Cys Gly Glu Ile Cys Ala Tyr Ala Xaa' Xaa' Cys Thr Gly Cys (SEQID NO: )  
 Pro Gly Xaa' Xaa' Thr Cys Gly Glu Ile Cys Ala Tyr Ala Xaa' Cys Xaa' Thr Gly Cys (SEQID NO: )  
 Pro Gly Xaa' Xaa' Thr Cys Gly Glu Ile Cys Ala Tyr Ala Xaa' Cys Thr Xaa' Gly Cys (SEQID NO: )  
 Pro Gly Xaa' Xaa' Thr Cys Gly Glu Ile Cys Ala Tyr Ala Xaa' Cys Thr Gly Xaa' Cys (SEQID NO: )  
 Pro Gly Xaa' Xaa' Thr Cys Gly Glu Ile Cys Ala Tyr Ala Xaa' Cys Thr Gly Cys Xaa' (SEQID NO: )  
 Pro Gly Xaa' Xaa' Thr Cys Gly Glu Ile Cys Ala Tyr Ala Xaa' Cys Thr Xaa' Gly Cys (SEQID NO: )  
 Pro Gly Xaa' Xaa' Thr Cys Gly Glu Ile Cys Ala Tyr Ala Xaa' Cys Thr Xaa' Gly Xaa' Cys (SEQID NO: )  
 Pro Gly Xaa' Xaa' Thr Cys Gly Glu Ile Cys Ala Tyr Ala Xaa' Cys Thr Gly Xaa' Cys Xaa' (SEQID NO: )  
 Pro Gly Xaa' Xaa' Thr Cys Gly Glu Ile Cys Ala Tyr Ala Xaa' Cys Thr Gly Cys Xaa' (SEQID NO: )

**FIG. 4**  
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**FIG. 4**  
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**FIG. 4**  
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[illegible]

**FIG. 4**  
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[illegible]

**FIG. 4**  
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**FIG. 4**  
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[illegible]

**FIG. 4**  
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[illegible]

**FIG. 4**  
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[illegible]

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**FIG. 4**  
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**FIG. 4**





**FIG. 4**

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[illegible]

**FIG. 4**  
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**FIG. 4**  
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**FIG. 4**  
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[illegible]

**FIG. 4**  
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[illegible]

**FIG. 4**  
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**FIG. 4**  
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[illegible]

**FIG. 4**  
**(sheet 28 of 114)**

[illegible]

[illegible]

[illegible]

[illegible]







[illegible]

[illegible]

**FIG. 4**  
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**FIG. 4**  
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**FIG. 4**  
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[illegible]

**FIG. 4**  
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**FIG. 4**  
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[illegible]

[illegible]

**FIG. 4**  
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**FIG. 4**  
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[illegible]

[illegible]

**FIG. 4**  
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[illegible]

**FIG. 4**  
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[illegible]

**FIG. 4**  
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[illegible]





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**FIG. 4**  
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[illegible]



[illegible]

**FIG. 4**  
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[illegible]

[illegible]

**FIG. 4**  
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[illegible]

[illegible]

**FIG. 4**  
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**FIG. 4**

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**FIG. 4**

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[illegible]











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**FIG. 4**  
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**FIG. 4**  
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**FIG. 4**  
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**FIG. 4**  
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**FIG. 4**  
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[illegible]

[illegible]







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**FIG. 4**  
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**FIG. 4**  
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**FIG. 4**  
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[illegible]

**FIG. 4**  
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[illegible]

**FIG. 4**  
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[illegible]

**FIG. 4**  
**(sheet 114 of 114)**

PGTCEICAYAACTGC (human) (SEQ ID NO: )	PGTCAEICAYAACTGC (SEQ ID NO: )
PGTCEICASAACTGC (SEQ ID NO: )	PGTCEAICAYAACTGC (SEQ ID NO: )
PGTCEICATAACTGC (SEQ ID NO: )	PGTCEIACAYAACTGC (SEQ ID NO: )
PGTCEICANAACTGC (SEQ ID NO: )	PGTCEICAAAYAACTGC (SEQ ID NO: )
PGTCEICAQAACTGC (SEQ ID NO: )	PGTCEICAYAAAACCTGC (SEQ ID NO: )
PGTCEICARAACTGC (SEQ ID NO: )	PGTCEICAYAAACATGC (SEQ ID NO: )
PGTCEICAEAACTGC (SEQ ID NO: )	PGTCEICAYAACTAGC (SEQ ID NO: )
PGTCEICADAACTGC (SEQ ID NO: )	PGTCEICAYAACTGAC (SEQ ID NO: )
PGTCEICAGAACTGC (SEQ ID NO: )	PGTCAEICAAAYAACTGC (SEQ ID NO: )
PGTCEICAAAACTGC (SEQ ID NO: )	PGTCEAICAAAYAACTGC (SEQ ID NO: )
PGTCEICAMAACTGC (SEQ ID NO: )	PGTCEIACAAYAACTGC (SEQ ID NO: )
PGTCEICAIAACTGC (SEQ ID NO: )	SHTCEICAFAAACAGC (SEQ ID NO: )
PGTCEICALAACTGC (SEQ ID NO: )	STCEICAYAAACAGC (SEQ ID NO: )
PGTCEICAVAACTGC (SEQ ID NO: )	PNTCEICAYAACTGC (SEQ ID NO: )
PGTCEICAHAACTGC (SEQ ID NO: )	PDPCEICANAACTGCL (SEQ ID NO: )
PGTCEGICAYAACTGC (SEQ ID NO: )	YDECEICMFAAACTGC (SEQ ID NO: )
PGTCEIGCAYAACTGC (SEQ ID NO: )	VCEICAFAACTGC (SEQ ID NO: )
PGTCEICGAYAACTGC (SEQ ID NO: )	PDVCDVCAFAACSGC (SEQ ID NO: )
PGTCEICAGYAACTGC (SEQ ID NO: )	LDLCEICAFAACTGC (SEQ ID NO: )
PGTCEICAYGAAGCTGC (SEQ ID NO: )	VDVCEICAFAACTGC (SEQ ID NO: )
PGTCEICAYAGACTGC (SEQ ID NO: )	LDICEICAFAACTGC ( (SEQ ID NO:.. )
PGTCEICAYAAAGCTGC (SEQ ID NO: )	
PGTCEICAYAACGTGC (SEQ ID NO: )	
PGTCEICAYAACTGC (SEQ ID NO: )	

FIGURE 5